

REMARKS

Claims 1-22 are pending in this application. Claims 1-9 are withdrawn.

Reconsideration of the rejection of claims 10-22 is respectfully solicited.

This Amendment incorporates the substance of a telephone interview conducted July 17, with Examiner Kebede.

Applicant gratefully acknowledges that the Office Action indicates that claims 10-12, 15, 19 and 20-22 recite patentable subject matter if rewritten to overcome the rejections set forth in this Office Action. However, Applicant respectfully submits that based on the following remarks, all claims are in condition for allowance.

The Office Action objects to the title of the invention. By this Amendment, the title is amended to obviate this ground of rejection.

The Office Action rejects claims 10-12 and 15-22 under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed.

The Office Action asserts that claims 10 and 15 are indefinite for reciting "a ground current that flows from the plasma to the inner wall of the chamber". However, Applicant submits that one of ordinary skill in the art would understand that a ground current flows from a high potential (i.e., the plasma) to a ground potential (i.e., the inner wall of the chamber). The formation of this ground current is described in the specification on page 2, lines 13-28, page 7, lines 8-29 and page 8, lines 11-32, for example. Applicant therefore submits that claim 10 along with dependent claims 11 and 12 and claim 15 along with dependent claims 16 and 17 are not indefinite.

The Office Action asserts that claims 18 and 21 are indefinite for reciting "depositing reaction products". However, Applicant submits that one of ordinary skill in the art understands that depositing reaction products occurs typically in plasma chambers wherein the plasma forms the reaction products which are deposited over surfaces in the vicinity of

the plasma. The term "depositing reaction products" is defined on page 3, lines 13-20. The deposition of reaction products is also discussed in Tamura (U.S. Patent No. 6,283,130) in col. 1, lines 38-50. The Office Action further asserts that it is confusing how the reaction products are formed since only a single gas is utilized to form the plasma (page 6 of Office Action). However, claims 18 and 21 do not recite a single gas, but instead recite "a gas atmosphere within the chamber". Thus, the gas atmosphere may comprise for example, silane gas and oxygen gas which produce silicon oxide deposition products as described in Tamura, col. 1, lines 42-45. Therefore, independent claim 18 along with dependent claims 19 and 20, and independent claim 21 along with dependent claim 22, are not indefinite.

Based on the foregoing, Applicant submits that claims 10-12 and 15-22 are not indefinite. As agreed to during the July 17 telephone interview, Applicant respectfully requests that the rejection under 35 U.S.C. §112, second paragraph be withdrawn.

The Office Action rejects claims 13, 14 and 18 under 35 U.S.C. §102(e) over Tamura (U.S. Patent No. 6,283,130). However, Applicant respectfully submits that Tamura does not disclose "increasing the first electric power when the bias voltage is higher than a selected upper limit, and decreasing the first electric power when the bias voltage is lower than a selected lower limit" as recited in claim 13. Applicant also submits that Tamura does not disclose "controlling the first electric power to maintain the bias voltage within a selected range, and when the bias voltage is not maintained within the selected range, controlling the second electric power to maintain the bias voltage within the selected range," as recited in claim 14. Lastly, Applicant submits that Tamura does not disclose "monitoring an amount of the reaction products deposited on the inner wall by monitoring the bias voltage; and controlling the first electric power to compensate the influence of the reaction products," as recited in claim 18.

The Office Action asserts that essentially the entire disclosure of Tamura (col. 3, line 35 - col. 9, line 54) discloses these elements. Applicant hereby requests that the Examiner provide more specific citations to passages that are alleged to disclose these features.

In particular, although Tamura does disclose "a power supply mechanism 3 for energizing the introduced gas for forming plasma" (col. 3, lines 46-53) and "a stage high frequency electromagnetic wave power supply 41 for applying predetermined high frequency electromagnetic wave power to the substrate stage 4" (col. 3, lines 50-52), Tamura does not disclose increasing/decreasing or controlling the power as recited in claims 13, 14 and 18. Instead, Tamura discloses "high-frequency electromagnetic wave power given by the stage high frequency electromagnetic wave power supply 41 was 1,000 W at about 13.56 MHz" (col. 6, lines 46-48) and "high-frequency electromagnetic wave power given by the power supply mechanism 3 was 100W at about 13.56 MHz" (col. 6, lines 52-54). Therefore, Tamura discloses setting the power supply outputs to certain levels, but not adjusting the power supply output in response to the bias voltage level. Nowhere does Tamura describe increasing/decreasing or controlling the powers as recited in claims 13 and 14.

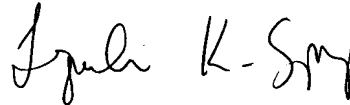
Lastly, although Tamura does disclose "as the thin film depositing process is repeated, a thin film is deposited on the interface of the vacuum vessel 1, and the non-placement area of the substrate stage 4" (col. 5, lines 61-63), Tamura does not disclose "monitoring an amount of the reaction products deposited on the inner wall by monitoring the bias voltage; and controlling the first electric power to compensate the influence of the reaction products," as recited in claim 18.

Therefore, Tamura does not disclose each and every element of claims 13, 14 and 18. Applicant respectfully requests that the rejection of claims 13, 14 and 18 under 35 U.S.C. §102(e) be withdrawn.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 10-22 is respectfully solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: September 15, 2003

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